

SLEEP GUIDANCE SYSTEM AND RELATED METHODS

ABSTRACT OF THE DISCLOSURE

5 A sleep efficiency monitor and methods for pacing and leading a sleeper through
an optimal sleep pattern. Embodiments of the present invention include a physiological
characteristic monitor for monitoring the sleep stages of a sleeper, a sensory stimulus
generator for generating stimulus to affect the sleep stages of a sleeper, and a processor
for determining what sleep stage the sleeper is in and what sensory stimulus is needed to
10 cause the sleeper to move to another sleep stage. A personalized sleep profile may also
be established for the sleeper and sleep guided in accordance with the profile parameters
to optimize a sleep session. By providing sensory stimulus to a sleeper, the sleeper may
be guided through the various sleep stages in an optimal pattern so that the sleeper
awakens refreshed even if sleep is disrupted during the night or the sleeper's allotted
15 sleep period is different than usual. Embodiments of the invention also involve
calibration of the sleep guidance system to a particular sleeper.